

Abstract

There are provided;

(i) a solid catalyst component obtained by contacting a

5 trivalent titanium atom-containing solid catalyst component precursor(C) with a halogeno compound(A) of the 13(IIa) or 14(IVa) group of elements in the periodic table of the elements and an electron donor(B), or a solid catalyst component obtained by contacting an intermediate product with a titanium-halogen

10 bond-carrying compound(D), the intermediate product being obtained by contacting the solid catalyst component precursor(C) with a halogeno compound(~~A~~) of the 14(IVa) group of elements in the periodic table of the elements and the electron donor(B), or a solid catalyst component comprising a magnesium atom, a titanium atom, a halogen atom and an electron 15 donor and having a relative surface area of not more than 30 m²/g, the catalyst component being superior in a particle form,

(ii) a catalyst comprising the solid catalyst component and an organoaluminum compound, the catalyst being high in 20 polymerization activity, so that there is no need to remove a catalyst residue from a polymer obtained after the polymerization, and

(iii) a process for producing an olefin polymer using the catalyst, the polymer produced being superior in powder 25 properties and low in a content of lower molecular weight components.